CTBR-AP

KFC ALL PURPOSE HALF-SIZE ELECTRIC CONVECTION OVEN

INSTALLATION – OPERATION – MAINTENANCE

BLODGETT OVEN COMPANY

www.blodgett.com

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IMPORTANT

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

The information contained in this manual is important for the proper installation, use, and maintenance of this oven. Adherence to these procedures and instructions will result in satisfactory baking results and long, trouble free service. Please read this manual carefully and retain it for future reference.

Errors: Descriptive, typographic or pictorial errors are subject to correction. Specifications are subject to change without notice.

THE REPUTATION YOU CAN COUNT ON

For over a century and a half, The Blodgett Oven Company has been building ovens and nothing but ovens. We've set the industry's quality standard for all kinds of ovens for every foodservice operation regardless of size, application or budget. In fact, no one offers more models, sizes, and oven applications than Blodgett; gas and electric, full-size, half-size, countertop and deck, convection, Cook'n Hold, Combi-Ovens and the industry's highest quality Pizza Oven line. For more information on the full line of Blodgett ovens contact your Blodgett representative.

Your Service Agency's Address:

Model:

Serial Number:

Your oven was installed by:

Your oven's installation was checked by:

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Introduction

Oven Description and Specifications

Cooking in a convection oven differs from cooking in a conventional deck or range oven since heated air is constantly recirculated over the product by a fan in an enclosed chamber. The moving air continually strips away the layer of cool air surrounding the product, quickly allowing the heat to penetrate. The result is a high quality product, cooked at a lower temperature in a shorter amount of time.

Blodgett convection ovens represent the latest advancement in energy efficiency, reliability, and ease of operation. Heat normally lost, is recirculated within the cooking chamber before being vented from the oven: resulting in substantial reductions in energy consumption and enhanced oven performance.

KW/Section	Volts	Phase	Amperes				Electrical Connection AWG*
			L1	L2	L3	N	
60 HZ UNITS							
8.0	208	1	35	–	35	–	6
8.0	208	3	22	20	21	–	10
8.0	220-240	1	32	–	32	–	6
8.0	220-240	3	20	18	19	–	10
50 HZ UNITS							
8	220–240	1	35	–	–	35	
8	220/380	3	14	12	12	2	
8	240/415	3	13	11	11	2	
8	230/400	3	13	11	11	2	Size per local codes

*NOTE: *Electric connection wiring is sized for 90°C copper wire at 125% of rated input. Refer to Page 4 in this manual for Electrical Connection specifications.*

NOTE: Double units can have phase loads partially equalized by matching lines during hook-up. Otherwise double unit load ratings are twice the above data.

Delivery and Location

DELIVERY AND INSPECTION

All Blodgett ovens are shipped in containers to prevent damage. Upon delivery of your new oven:

- Inspect the shipping container for external damage. Any evidence of damage should be noted on the delivery receipt which must be signed by the driver.
- Uncrate the oven and check for internal damage. Carriers will accept claims for concealed damage if notified within fifteen days of delivery and the shipping container is retained for inspection.

The Blodgett Oven Company cannot assume responsibility for loss or damage suffered in transit. The carrier assumed full responsibility for delivery in good order when the shipment was accepted. We are, however, prepared to assist you if filing a claim is necessary.

OVEN LOCATION

The well planned and proper placement of your oven will result in long term operator convenience and satisfactory performance.

The CTBR-AP requires 0" (0 cm) clearances between the oven sides and back and any combustible or non-combustible construction. However, we recommend that adequate clearance be maintained for proper servicing.

Keep the oven area free and clear of all combustibles such as paper, cardboard, and flammable liquids and solvents.

To ensure proper operation, ventilation must not be obstructed in any way. Tripping of the blower motor thermal overload protective device is caused by excessive ambient temperature on the control side of the oven resulting from insufficient ventilation. This condition must be corrected immediately to avoid permanent damage to the oven.

Before making any utility connections to this oven, check the rating plate to be sure the oven specifications are compatible with the electrical services supplied for the oven.

NOTE: The rating plate is attached to the underside of the oven upper ledge above the control panel.

ADJUSTMENTS ASSOCIATED WITH INITIAL INSTALLATION

Each oven, and its component parts, have been thoroughly tested and inspected prior to shipment. However, it is often necessary to further test or adjust the oven as part of a normal and proper installation. These adjustments are the responsibility of the installer, or dealer. Since these adjustments are not considered defects in material or workmanship, they are not covered by the Original Equipment Warranty. They include, but are not limited to:

- leveling
- tightening of fasteners.

No installation should be considered complete without proper inspection, and if necessary, adjustment by qualified installation or service personnel.

Installation

Utility Connections

THE INSTALLATION INSTRUCTIONS CONTAINED HEREIN ARE FOR THE USE OF QUALIFIED INSTALLATION AND SERVICE PERSONNEL ONLY. INSTALLATION OR SERVICE BY OTHER THAN QUALIFIED PERSONNEL MAY RESULT IN DAMAGE TO THE OVEN AND/OR INJURY TO THE OPERATOR.

Qualified installation personnel are individuals, a firm, a corporation, or a company which either in person or through a representative are engaged in, and responsible for:

- the installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.

Qualified installation personnel must be experienced in such work, familiar with all precautions required, and have complied with all requirements of state or local authorities having jurisdiction.

U.S. and Canadian installations

All ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70–Latest Edition and/or Canadian National Electric Code C22.2* as applicable.

The ventilation of this oven should be in accordance with local codes. In the absence of local codes, refer to the National ventilation code titled, "*Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment*", NFPA-96-Latest Edition.

General export installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your Blodgett oven, please contact your local distributor. If you do not have a local distributor, please call the Blodgett Oven Company at 0011-802-860-3700.

ELECTRICAL CONNECTION

WARNING!!

Before making any utility connections to this oven, check the rating plate to be sure the oven specifications are compatible with the electrical services supplied for the oven.

Wiring diagrams are located in the control compartment area.

Ovens are supplied for operation in several voltage choices, single or three phase grounded circuits.

U.S. and Canadian Installations

The electric motor, indicator lights and related switches are interconnected through the one power source supplied to the oven.

1. The supply conduit enters through the rear of the oven and electrical block secured to the perforated panel at the back of the control compartment.

General Export Installations

Export ovens are not supplied with a power cord. Size the electrical connection in accordance with local and National installation standards.

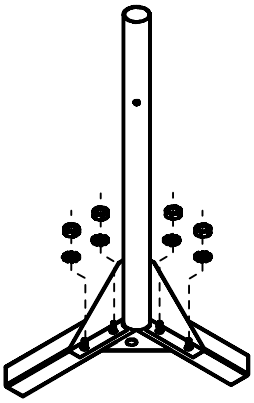
THE BLODGETT OVEN COMPANY CANNOT ASSUME RESPONSIBILITY FOR LOSS OR DAMAGE SUFFERED AS A RESULT OF IMPROPER INSTALLATION.

Oven Assembly

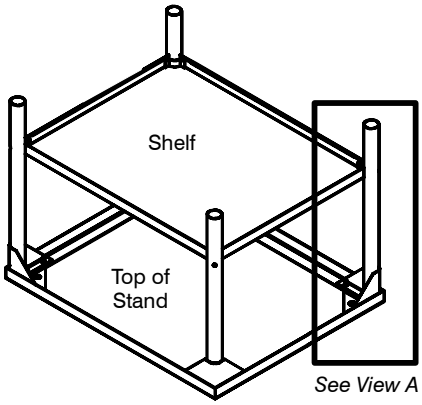
STAND ASSEMBLY

1. Place stand frame upside down on a work surface.
2. Attach one leg to each of the corner stud bolts on the bottom of the stand top.
3. Place a lock washer and nut on each bolt and tighten. DO NOT tighten leg bolts completely.
4. Place the shelf between the legs so that the smooth top surface is facing the top of the stand.
5. Align the shelf holes with the bolt holes found near the bottom of each leg.
6. Insert a carriage bolt from the outside of the leg, through the leg, and through the shelf corner bracket.
7. Place a lock washer and nut on each bolt, and tighten securely.
8. Tighten the leg frame bolts.
9. Snap the casters into the legs of the stand. Secure by tightening the locknut.

   NOTE: The locking casters must be installed on the front of the stand.

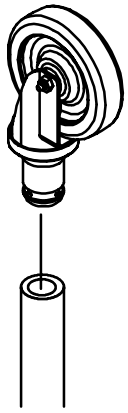


Attach the legs to the stand frame

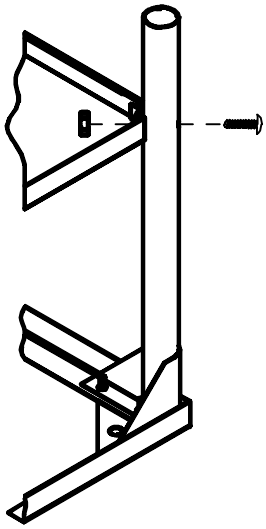


Bottom View

Attach the shelf to the stand



Attach the casters to the legs



View A

Figure 1

Installation

Oven Assembly

OVEN ASSEMBLY TO STAND

1. Place the assembled stand in the location where the oven is going to be used.
2. Remove the side control compartment cover and open the front control panel of a single oven (or lower section).
3. With a tool, punch out the knock-outs in the oven bottom near each corner.
4. Set the on the stand. Center it to the frame.
   NOTE: There should be approximately 1/2" of stand visible on all sides of the unit.
5. Align the front and rear bolt holes of the oven with the bolt holes in the stand.
6. Insert a bolt and washer, from the top down through each of the two holes.
7. Place a nut and washer on each of the bolts and tighten securely.
8. Replace the oven's side control compartment, and close the front control panel.
   NOTE: For single section ovens only. For double stacked ovens step 8 will be completed once the ovens are stacked.

Oven Leveling

1. Place a level on top of the oven. Loosen the set screws on the side of each caster. Turn the adjustment collar clockwise to raise and counter clockwise to lower the oven.
2. When the oven is level, tighten the casters by turning the two set screws on the side of each caster assembly.

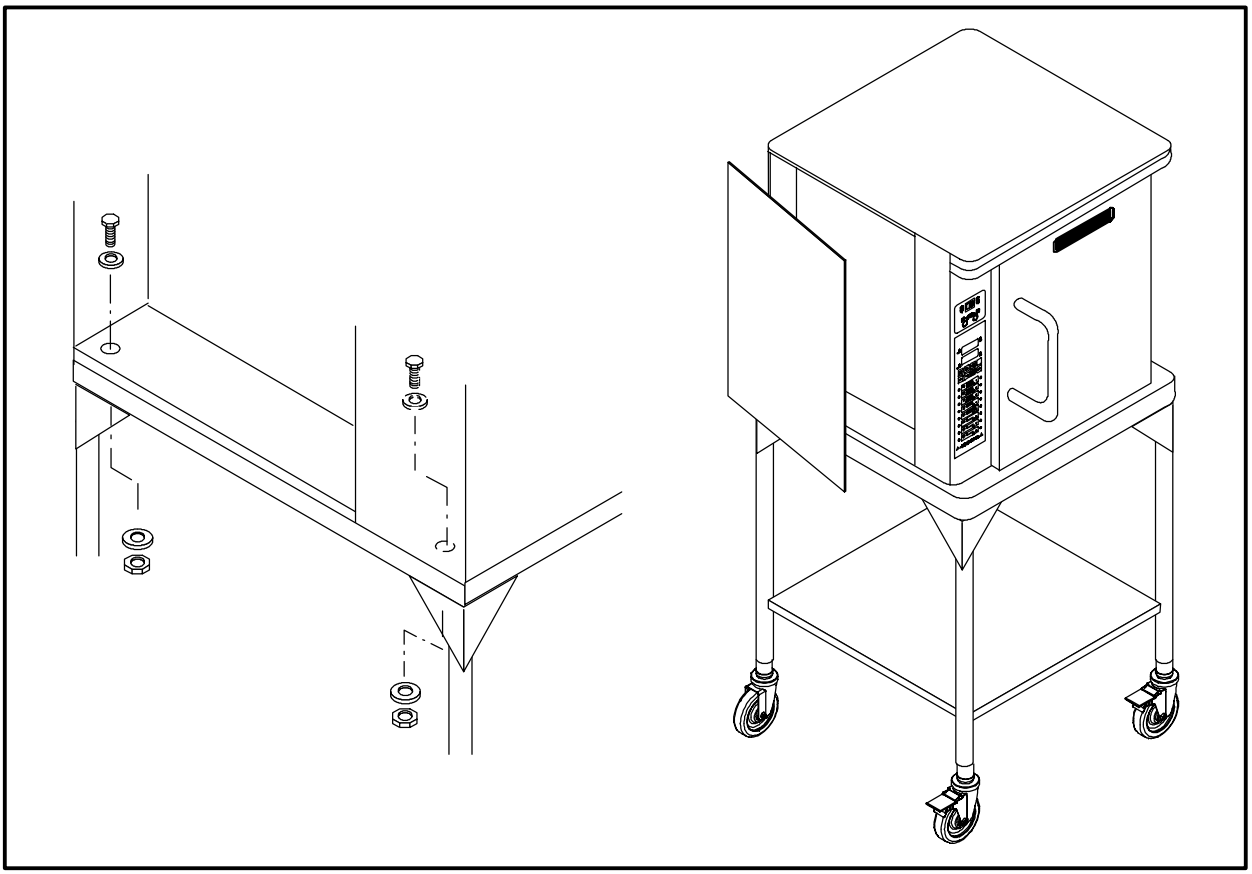


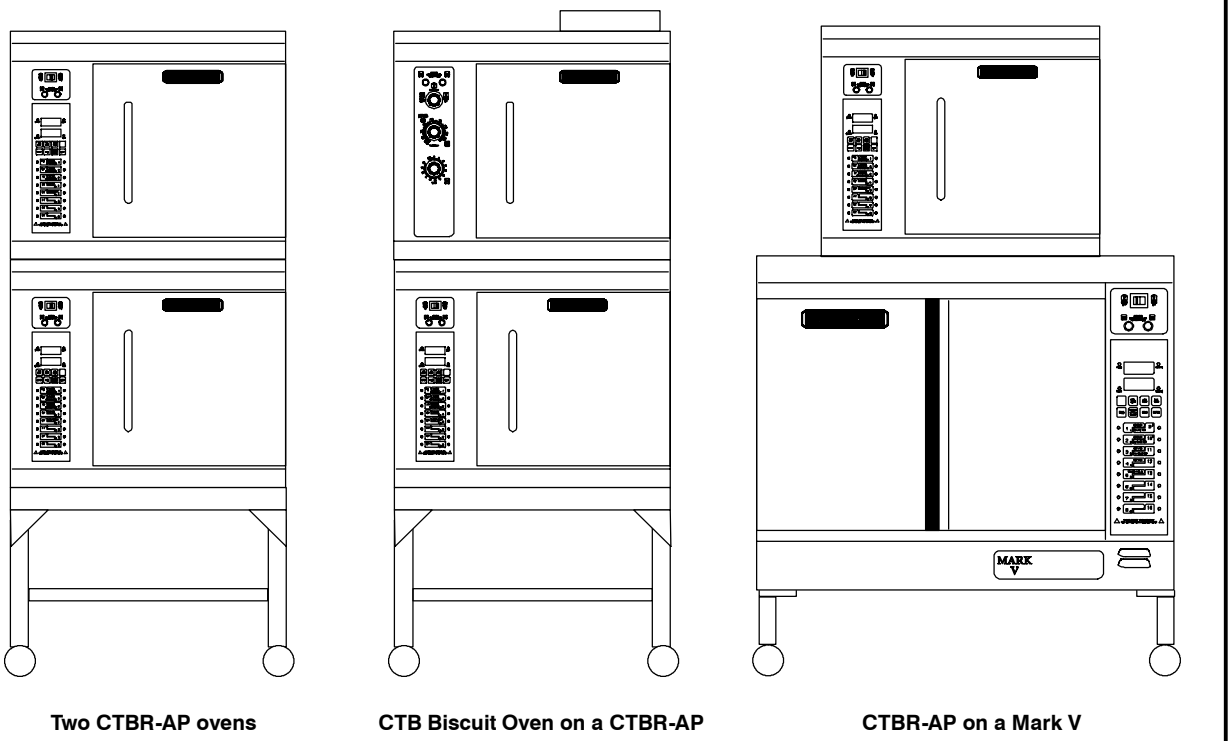
Figure 2

DOUBLE SECTION ASSEMBLY

There are three stacking configurations available for the CTBR-AP.

- Two CTBR-AP ovens
- CTB biscuit oven stacked on top of a CTBR-AP
- CTBR-AP stacked on top of a Mark V

See pages 8–10 for stacking instructions for all configurations.



Two CTBR-AP ovens | CTB Biscuit Oven on a CTBR-AP | CTBR-AP on a Mark V

Figure 3

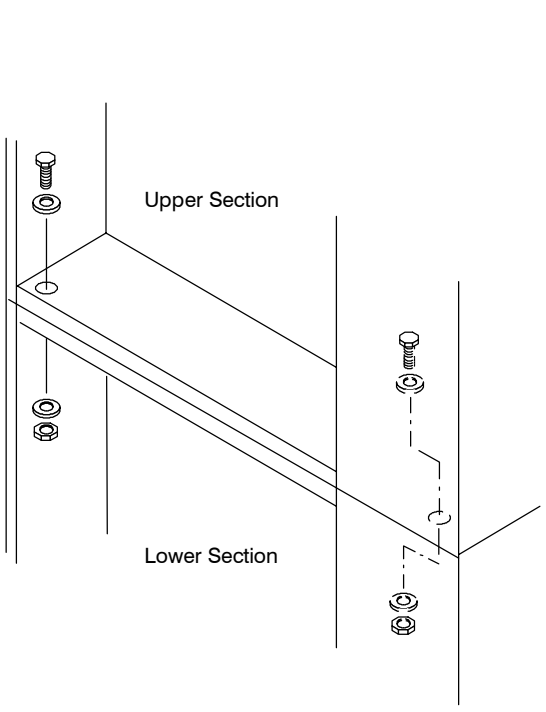
Installation

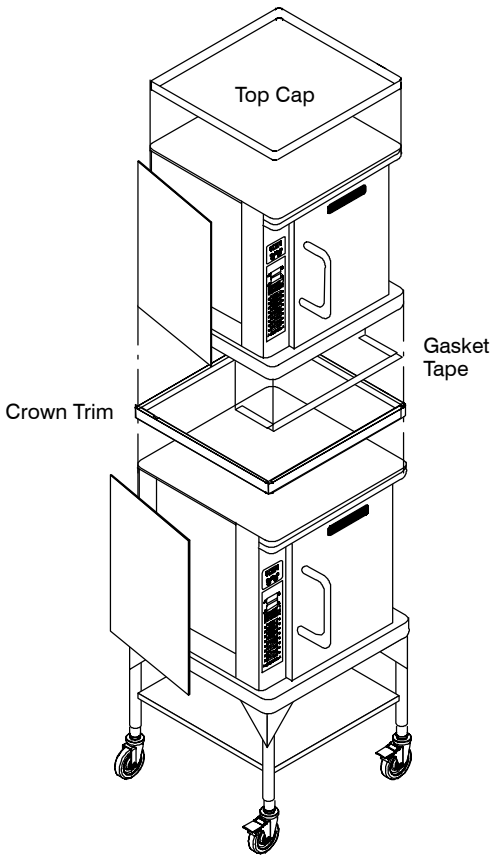
Oven Assembly

Stacking two CTBR-AP's or a CTB biscuit oven on top of a CTBR-AP

NOTE: When stacking a CTBR-AP and CTB biscuit oven with the FAST timer, the CTB must be placed on top.

1. Assemble the lower section to the stand. See Figure 2.
2. Place the stainless steel crown trim on top of the lower section.
3. Remove the side control compartment cover and open the front control panel on the upper section.
4. With a tool, punch out the knock-outs in the oven bottom near each corner of the upper section.
5. Punch out the knockouts in the top of the lower section near the left hand corners.
6. Lay the upper section on its back. Attach the self adhesive gasket tape to the front and side edges on the bottom of the unit. See Figure 4.
7. Set the upper section on the lower section.
8. Align the front and rear bolt holes of the upper section with the bolt holes in the bottom section.
9. Insert a bolt and washer from the top down through each of the two holes.
10. Place a nut and washer on each of the bolts and tighten securely.
11. Replace the oven side control compartments, and close the front control panels on both oven sections.
12. Place the top cap on top of the upper unit.





Double stacked CTBR-AP shown

Figure 4

Oven Assembly

Stacking a CTBR-AP on top of a Mark V

1. Lay the Mark V on its back.
2. Remove the 25" legs. Pry the casters out of the old legs.
3. Attach the 6" legs with casters as follows:

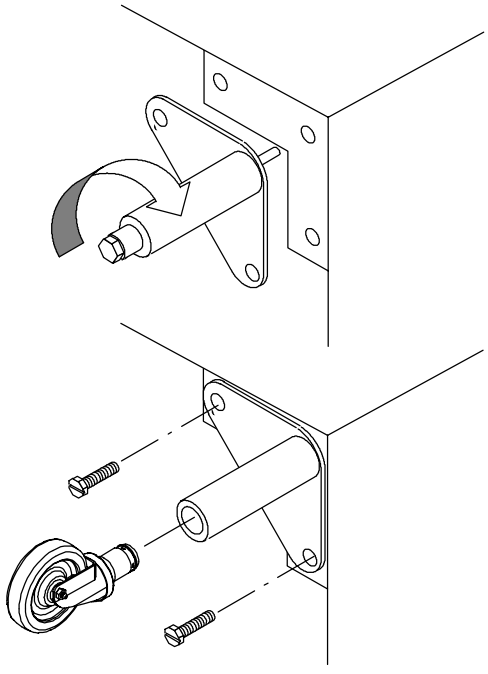
   NOTE: The locking casters must be installed on the front of the oven.

   a.) Align the threaded stud in each leg with the nut located inside each bottom corner of the oven frame. Turn the legs clockwise and tighten to the nearest full turn.

   b.) Align the two leg plate holes in each leg with those in the oven bottom. Secure each leg using two 1/2" bolts.

   c.) Pry the foot out of the 6" legs. Snap the casters into the legs.

   d.) Tip the oven up on the casters.



Attaching the 6' legs and casters

Figure 5

4. Remove the crown trim from the Mark V.
5. Bolt the stacking plate to the top of the Mark V with the studs facing up. See Figure 6.
6. Reinstall the crown trim.
7. Lay the CTBR-AP on its back. Attach the self adhesive gasket tape to the front and side edges on the bottom of the unit. See Figure 6.
8. Set the CTBR-AP upright on top of the Mark V.
9. Remove the control compartment cover and access panel from the CTBR-AP.
10. Align the front and rear bolt holes of the CTBR-AP with the studs on the stacking plate. See Figure 6.
11. Place a nut and washer on each of the studs and tighten securely.
12. Replace the control compartment cover and access panel.
13. Insert the flue extension over the flue on the Mark V. Attach using screws provided.

    NOTE: If the oven has a vent guard it must be removed before installing the flue extension.

14. Place the flat plate of the flue brace on top the CTBR-AP. The two holes in the end of the brace must line up with the holes in the flue extension. Attach the flue brace to the flue extension with the screws provided.
15. Place the top cap on top of the CTBR-AP.

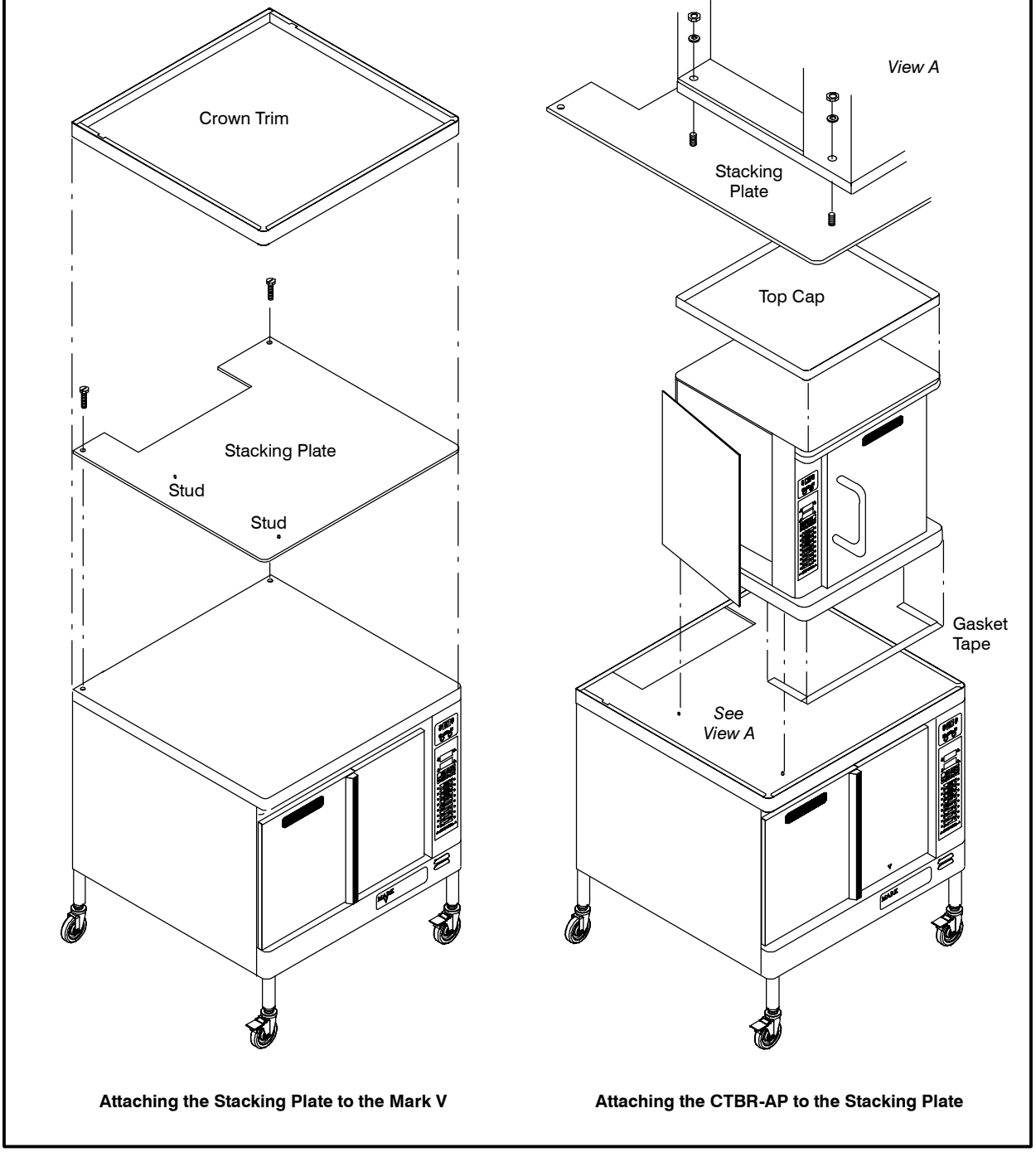
    NOTE: This will secure the flue brace.

Oven Leveling

1. Place a level on top of the oven. Loosen the set screws on the side of each caster. Turn the adjustment collar clockwise to raise and counter clockwise to lower the oven.
2. When the oven is level, tighten the casters by turning the two set screws on the side of each caster assembly.

Installation

Oven Assembly



Attaching the Stacking Plate to the Mark V

Attaching the CTBR-AP to the Stacking Plate

Figure 6

Oven Assembly

VENTILATION

SINGLE OVENS

1. Mount the vent shield with the vent guard. Align the mounting holes in the vent shield with top holes in the vent guard.

DOUBLE STACKED OVENS

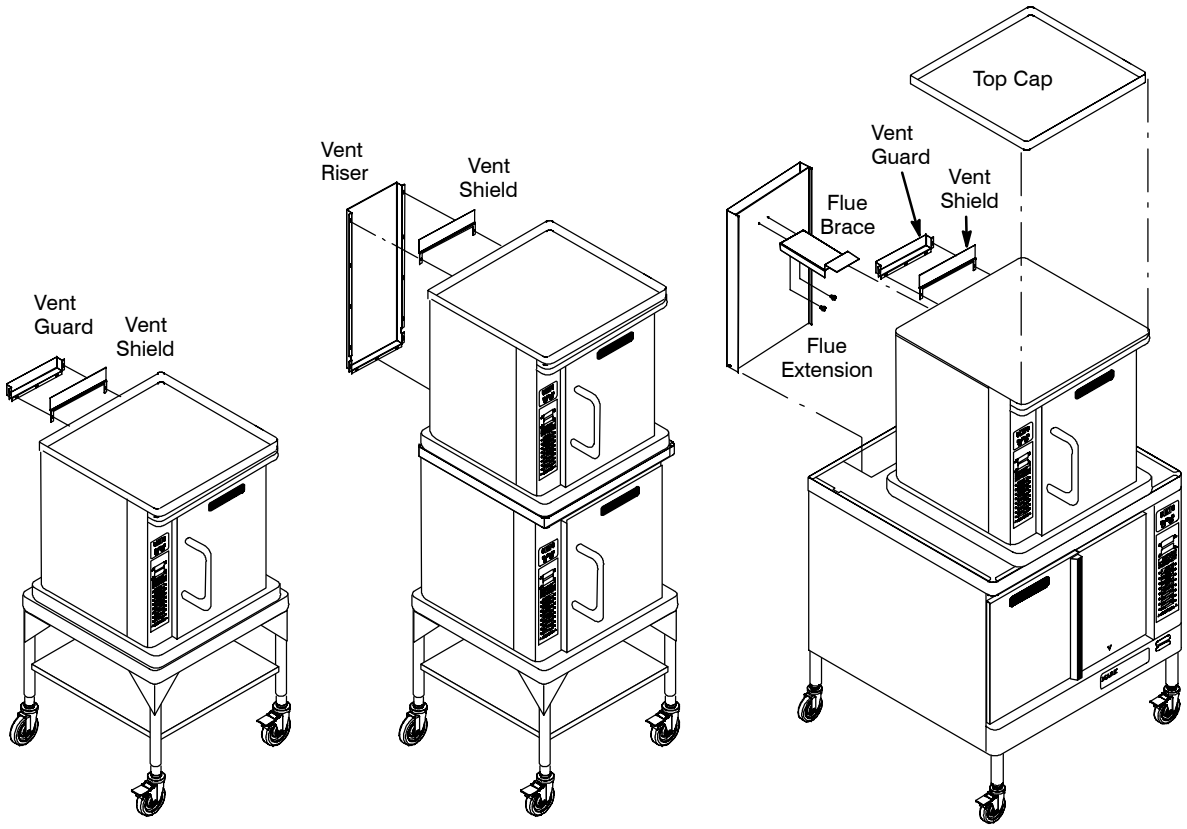
Two CTBR-AP's or a CTB biscuit oven on top of a CTBR-AP

1. Connect the upper and lower flues with the vent riser. Mount the vent shield with the vent riser. Align the mounting holes in the vent shield with top holes in the vent riser.

Stacking a CTBR-AP on top of a Mark V

1. Mount the vent shield with the vent guard. Align the mounting holes in the vent shield with top holes in the vent guard.
2. Insert the flue extension over the flue on the Mark V. Attach using screws provided.

   NOTE: If the oven has a vent guard it must be removed before installing the flue extension.
3. Slide the flat plate of the flue brace under the top cap on top the CTBR-AP. The two holes in the end of the brace must line up with the holes in the flue extension.
4. Attach the flue brace to the flue extension with the screws provided.



CTBR-AP Single Oven **CTBR-AP on a CTBR-AP** **CTBR-AP on a Mark V**

Figure 7

Operation

Safety Information

THE INFORMATION CONTAINED IN THIS SECTION IS PROVIDED FOR THE USE OF QUALIFIED OPERATING PERSONNEL. QUALIFIED OPERATING PERSONNEL ARE THOSE WHO HAVE CAREFULLY READ THE INFORMATION CONTAINED IN THIS MANUAL, ARE FAMILIAR WITH THE FUNCTIONS OF THE OVEN AND/OR HAVE HAD PREVIOUS EXPERIENCE WITH THE OPERATION OF THE EQUIPMENT DESCRIBED. ADHERENCE TO THE PROCEDURES RECOMMENDED HEREIN WILL ASSURE THE ACHIEVEMENT OF OPTIMUM PERFORMANCE AND LONG, TROUBLE-FREE SERVICE.

Please take the time to read the following safety and operating instructions. They are the key to the successful operation of your Blodgett convection oven.

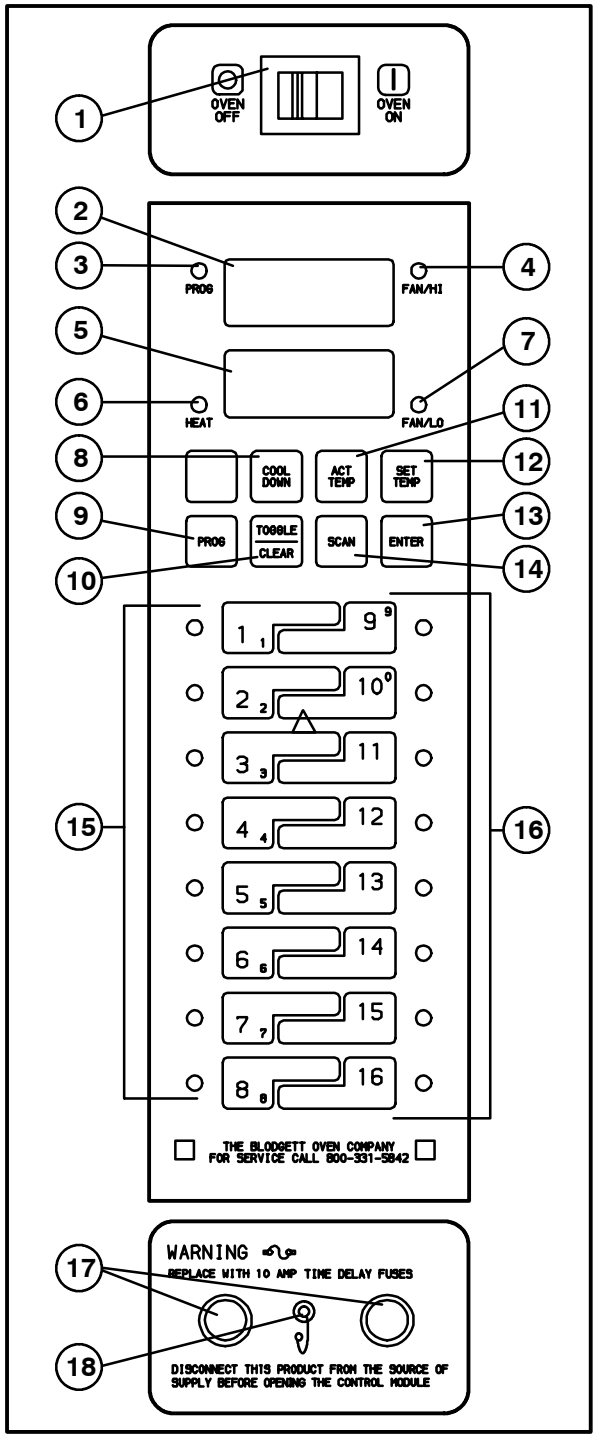


Figure 8

COMPONENT DESCRIPTION

NOTE: The control version is indicated by symbols located at the bottom of the control. For example: phase IV controls have squares.

1. OVEN POWER SWITCH – controls power to the oven.
2. TOP DISPLAY – displays temperature and other controller related information.
3. PROG LED – when lit indicates the controller is in the programming mode.
4. FAN HI LED – when lit indicates the fan is running at high speed.
5. BOTTOM DISPLAY – displays cook time and other controller related information.
6. HEAT LED – when lit indicates the control is calling for heat.
7. FAN LO LED – when lit indicates the fan is running at low speed.
8. COOL DOWN KEY – press to enter the cool down mode.
9. PROG KEY – press to enter the programming mode.
10. TOGGLE/CLEAR KEY – press during programming to toggle options or clear display.
11. ACT TEMP KEY – press to display the actual oven temperature.
12. SET TEMP KEY – press to display the programmed cook temperature for the current stage of the product key.
13. ENTER KEY – press to enter new values into product key programming. Also used to view recovery time.
14. SCAN KEY – completes the programming for the current parameter and advances the controller to the next parameter. Press to view time remaining on multiple cook cycles.
15. PRODUCT LEDS – when lit indicates which product keys are currently in use or programmed for the current oven temperature and fan speed.
16. PRODUCT KEYS – assigns a key to a programmed recipe and begins a programmed cooking process.
17. FUSE – Provids oven circuit protection.
18. COMPORT – used to download programming information.

Operation

CTBR-AP Control

OVEN OPERATION

Oven Startup:

1. Toggle the POWER SWITCH (1) to *ON*. Both displays read *IN IT* for approximately three seconds. The oven preheats to the lowest programmed first stage temperature. The LEDS (15) for all products with the same first stage temperature light.

   While the unit preheats the TOP DISPLAY (2) gives the actual temperature. The BOTTOM DISPLAY (5) reads *Lo* if the oven is more than 10° below setpoint. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *LoAd*.

Single Product Cooking Procedure:

NOTE: If the LED next to the desired product key is lit skip step 1.

NOTE: Press and hold the selected product key for three seconds to cancel the cook cycle.

1. Press the desired PRODUCT KEY (16). The oven preheats to the first stage temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *LoAd*.
2. Load the product into the oven. Press the selected PRODUCT KEY (16) to start the cook cycle. The LED (15) next to the selected product key flashes. The top display reads ––––. The bottom display counts down the cook time in minutes:seconds.

   NOTE: If the selected product has a cook time of greater than 59:59 the top display reads Hr–– for the total number of hours. The bottom display counts down the cook time in minutes:seconds.

   NOTE: If the selected product is a single stage recipe the LEDS for all single stage products with the same cook temperature and fan speed will light. If the selected product is a multiple stage recipe no other product LEDS will light.
3. When the cook time expires an alarm sounds and the top display reads *donE*. The bottom display flashes *00:00*.
4. Press the selected product key to silence the alarm. Remove the product.

Multiple Batch Cooking Procedure:

This procedure is for single stage recipes with the same cook temperature and fan speed only.

NOTE: If the led next to the first desired product key is lit skip step 1.

NOTE: Press and hold the selected product key for three seconds to cancel the cook cycle.

1. Press the first desired PRODUCT KEY (16). The LEDS for all recipes with the same cook temperature and fan speed will light.

   The oven preheats to the cook temperature for the selected product. When the oven reaches ±10° of the preheat temperature an alarm sounds and the bottom display reads *LoAd*.
2. Load the first product into the oven. Press the selected PRODUCT KEY (16) to start the cook cycle. The LED (15) next to the selected product key flashes. The top display reads ––––. The bottom display counts down the cook time in minutes:seconds.
3. Load the second product. Press the appropriate PRODUCT KEY (16).

   NOTE: Only products with lighted LEDS may be selected.
4. The LED for the product with the least time remaining flashes faster than the led for the other product. The TOP DISPLAY (2) reads ––––. The BOTTOM DISPLAY (5) counts down the cook time for the product with the least time remaining.

   NOTE: To view the remaining cook time for the other products, press and hold the SCAN KEY (14). The displays cycle through the selected products and their remaining cook times. Only the LED for the product with the cook time displayed flashes.
5. When a cook time expires an alarm sounds. The top display reads *donE*. The bottom display flashes *00:00*, The led for the finished product lights. All other LEDS are dark.
6. Press the PRODUCT KEY (16) for the finished product to silence the alarm. Remove the product. Close the oven door. The TOP DISPLAY (2) reads ––––. The BOTTOM DISPLAY (5) counts down the cook time for the other product.

7. When the cook time expires an alarm sounds and the top display reads *donE*. The bottom display flashes *00:00*.
8. Press the PRODUCT KEY (16) to silence the alarm. Remove the product.

Using PreAlarms:

1. The top display reads *AX__*.

   NOTE: A indicates the alarm function. X is the prealarm number. __ is the alarm time.

   The LED for the active product key flashes. All other LEDS are off. The function keys are disabled.
2. If a manual PreAlarm is activated, press the product key to silence the alarm.

   If an automatic PreAlarm is activated the alarm sounds for approximately 5 seconds then stops automatically. Press the product key to silence automatic PreAlarms.

Using Head Count:

Use the following instructions to display the current head count for an individual product key.

1. Press the SCAN KEY (14) and the desired product key simultaneously. The top display reads *HdXX*.

   NOTE: Hd indicates the head count function. XX indicates product 1 to 16.

   The bottom display gives the total number of heads cooked from 1 to 9999. The product key LED remains lit.
2. Press the TOGGLE/CLEAR KEY (10) to reset the counter if desired.
3. Press the SCAN KEY (14) to exit.

Use the following instructions to display the total head count.

1. Press the SCAN KEY (14) and the ENTER KEY (13) simultaneously. The top display reads *HEAd*. The bottom display gives the total number of heads cooked from 1 to 9999. All product LEDS remain lit
2. Press the TOGGLE/CLEAR KEY (10) to reset the counter if desired.

   NOTE: Clearing the total head count also clears individual product head counts.
3. Press the SCAN KEY (14) to exit.

Oven Cool Down:

1. Close the oven door. Press the COOL DOWN KEY (8).

NOTE: Cool down cannot be activated with the oven door open. Once the cool down cycle has begun the doors may be opened to speed the cooling process.

Operation

CTBR-AP Control

PROGRAMMING SINGLE STAGE RECIPES

NOTE: Refer to the KFC Standards Library for actual recipes.

Entering the Programming Mode:

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 3 1 2 4. Press the ENTER KEY (13). The top display reads *Prod*.
3. Press the desired product key followed by the ENTER KEY (13).

Programming the Cook Time:

NOTE: If the product has a cook time of greater than 59:59 the top display reads Px– – for the product, stage and hours. The bottom display counts down the cook time in minutes:seconds.

1. The top display reads P1:__. The bottom display gives the current programmed cook time for stage 1 in minutes:seconds. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter the new cook time. Press the ENTER KEY (13) to save the new cook time.
2. The top display reads P2:__. The control is asking for the cook time for stage 2 of this recipe. Press the TOGGLE/CLEAR KEY (10) to enter a time of 0:00:00 for P2:.

   NOTE: This tells the controller that there are no more stages for this recipe. Once a single stage recipe has been established the control will only allow entries for one stage on all further parameters for this product.
3. Press the ENTER KEY (13) again. The top display reads P1:. The bottom display shows the cook time.
4. Press the SCAN KEY (14) to advance the programming mode to cook temperature.

Programming the Cook Temperature:

1. The top display reads *Ct–1*. The bottom display gives the current cook temperature. Use the product keys to enter the desired cook temperature.
2. Press the SCAN KEY (14) to advance the programming mode to fan speed

Programming the Fan Speed:

1. The top display reads *SPd1*. The bottom display gives the current fan speed. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *HI* and *Lo*.
2. Press the SCAN KEY (14) to advance the programming mode to the fan cycle time.

Programming the Fan Cycle Time:

There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation. We recommended using the Full fan cycle mode.

1. The top display reads *CYC1*. The bottom display gives the current fan cycle. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *PULS*, *HEAt* and *FULL*.
2. If heat or full are selected press the SCAN KEY (14) to save the new fan cycle and advance to timing mode.

   If pulse is selected press the SCAN KEY (14) and continue with Steps 3–4 to program the pulse cycle.
3. The top display reads *on–1*. The bottom display gives the current pulse on time. Use the product keys to enter the desired pulse on time from 10 to 60 seconds . Press the SCAN KEY (14).
4. The top display reads *of–1*. The bottom display gives the current pulse off time. Use the product keys to enter the desired pulse off time from 10 to 60 seconds. Press the SCAN KEY (14) to advance the programming mode to timing mode.

Programming the Timing Mode:

There are 3 options for timing mode: Straight, Flex and Sensitivity. We recommend using the Flex mode.

1. The top display reads *tC–1*. The bottom display gives the current timing mode. Press the TOGGLE/CLEAR KEY (10) to toggle between *St*, *FL* and *SE*ns.
2. If straight or flex are selected press the SCAN KEY (14) to advance the programming mode to PreAlarms.
3. If sensitivity is selected press the SCAN KEY (14) and continue with Steps 4–5.

   NOTE: Sensitivity adjusts the cook time to compensate for any difference between the setpoint and actual temperature. The lower the sensitivity value the shorter the time adjustment.
4. The top display reads *SE–1*. Use the product keys to enter the desired sensitivity from 0-9.
5. Press the SCAN KEY (14) to advance the programming mode to PreAlarms.

Programming the PreAlarms:

A PreAlarm is an alarm that sounds during the cook cycle. PreAlarms can be used to alert the operator that the product needs to be turned or stirred, etc. Up to three PreAlarms can be programmed for each product.

1. The top display reads *A1*. The bottom display gives the alarm time. Use the product keys to enter the desired time for the first alarm. Press the ENTER KEY (13) to enter the PreAlarm time.

   NOTE: PreAlarm times are measured from the end of the total cook time. For example if the total cook time is 30:00 and a PreAlarm of 5:00 is entered, the alarm will sound 25 minutes into the cook cycle. If a PreAlarm of 0:00 is entered, no additional PreAlarms may be programmed for the selected product key.
2. Press the SCAN KEY (14).
3. The top display reads *AUTo*. The bottom display reads either *YES* or *no*. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14) to enter the PreAlarm type.

   NOTE: An auto PreAlarm sounds for approximately 5 seconds, then shuts off automatically. For manual PreAlarms the operator must press the product key to silence the alarm.
4. The top display reads *A2__*. Repeat steps 1–3 for the second and third PreAlarm. When all PreAlarms have been entered the control advances to programming the head count.

Programming the Head Count:

1. The top display reads *HEAd*. The bottom display gives the current number of heads programmed for this product key. Use the product keys to enter the desired number of heads from 1-99.
2. Press the SCAN KEY (14). The programming for this recipe is now complete.

Exiting the programming mode:

1. The top display reads *Prod.* Press the PROG KEY (9). The control returns to operating mode.

Operation

CTBR-AP Control

PROGRAMMING MULTIPLE STAGE RECIPES

NOTE: Refer to the KFC Standards Library for actual recipes.

Entering the Programming Mode:

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 3 1 2 4. Press the ENTER KEY (13). The top display reads *Prod*.
3. Press the desired product key followed by the ENTER KEY (13).

Programming the Cook Time:

NOTE: If any stage of the product has a cook time of greater than 59:59 the top display reads Px−− for the product, stage and hours. The bottom display counts down the cook time in minutes:seconds.

1. The top display reads P1:__. The bottom display gives the current programmed cook time for stage 1 in minutes:seconds. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter the new cook time. Press the ENTER KEY (13) to save the new cook time.
2. The top display reads P2:__. The control is asking for the cook time for the second stage of this recipe. Repeat Step 1 for each additional stage.
3. When the cook times for all stages are programmed, press the TOGGLE/CLEAR KEY (10) to clear the bottom display.

   NOTE: This tells the controller that there are no more stages for this recipe. Once the number of stages has been established the control will only allow entries for these stages on all further parameters for this product.
4. Press the ENTER KEY (13) again. The display reads P1:. The bottom display shows the cook time.
5. Press the SCAN KEY (14) to advance the programming mode to cook temperature.

Programming the Cook Temperature:

1. The top display reads *Ct−1*. The bottom display gives the current cook temperature for stage 1 of this recipe. Use the product keys to enter the desired cook temperature.
2. Press the ENTER KEY *(13)* to save the new cook temperature for stage 1. The top display reads Ct−2.

   NOTE: Repeat Steps 1−2 to program the cook temperature for additional stages. When the cook temperature for the final stage has been entered the top display reads Ct−1.
3. Press the SCAN KEY (14) to advance the programming mode to fan speed

Programming the Fan Speed:

1. The top display reads *SPd1*. The bottom display gives the current fan speed for stage 1. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *HI* and *Lo*.
2. Press the ENTER KEY *(13)* to save the new fan speed for stage 1. The top display reads *SPd2*.

   NOTE: Repeat Steps 1−2 to program the fan speed for additional stages. When the fan speed for the final stage has been entered the top display reads SPd1.
3. Press the SCAN KEY (14) to advance the programming mode to the fan cycle time.

CTBR-AP Control

Programming the Fan Cycle Time:

There are 3 options for fan cycle time: Pulse, Heat and Full. Pulse allows the fan to turn on and off as programmed. Heat allows the fan to operate with heat only. Full provides continuous fan operation. We recommended using the Full fan cycle mode.

1. The top display reads *CYC1*. The bottom display gives the current fan cycle for stage 1. Press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *PULS*, *HEAt* and *FULL*.
2. Press the ENTER KEY *(13)* to save the new fan cycle for stage 1. The top display reads *CYC2*.

   NOTE: Repeat Steps 1–2 to program the fan cycle for additional stages.
3. When the fan cycle for the final stage has been entered press the SCAN KEY (14).

   If no pulse cycles are programmed the control advances to timing mode.

   If pulse is used, the control returns to the first stage programmed for the pulse fan option. Follow Steps 4–5 to program the pulse on and off time.
4. The top display reads *on–x*. The bottom display gives the current pulse on time for this stage. Use the product keys to enter the desired pulse on time from 10 to 60 seconds. Press the SCAN KEY (14).
5. The top display reads *of–x*. The bottom display gives the current pulse off time. Use the product keys to enter the desired pulse off time from 10 to 60 seconds. Press the SCAN KEY (14). The control advances to the next stage programmed for the pulse fan option.

   NOTE: Repeat Steps 4–5 to program cycle times for all pulse fan stages. When the final pulse off time has been entered the control advances to timing mode.

Programming the Timing Mode:

NOTE: It may be necessary to press the ENTER KEY (13) until the top display reads tC–1.

There are 3 options for timing mode: Straight, Flex and Sensitivity. We recommend using the Flex mode.

1. The top display reads *tC–1*. The bottom display gives the current timing mode. Press the TOGGLE/CLEAR KEY (10) to toggle between *St*, *FL* and *SEns*.
2. Press the ENTER KEY *(13)* to save the new timing mode for stage 1. The top display reads *tC–2*.

   NOTE: Repeat Steps 1–2 to program the timing mode for additional stages.
3. When the timing mode for the final stage has been entered press the SCAN KEY (14).

   If no sensitivity cycles are selected the control advances to PreAlarms.

   If sensitivity is used, the control returns to the first stage programmed with sensitivity. Follow Step 4 to program the sensitivity level.
4. The top display reads *SE–1*. Use the product keys to enter the desired sensitivity from 0–9. Press the SCAN KEY (14). The control advances to the next stage programmed for sensitivity.

   NOTE: Repeat Step 4 *to program sensitivity levels for all applicable stages. When the final sensitivity level has been entered the control advances to PreAlarms.*

Operation

CTBR-AP Control

Programming the PreAlarms:

A PreAlarm is an alarm that sounds during the cook cycle. PreAlarms can be used to alert the operator that the product needs to be turned or stirred, etc. Up to three PreAlarms can be programmed for each product.

1. The top display reads *A1*. The bottom display gives the alarm time. Use the product keys to enter the desired time for the first alarm. Press the ENTER KEY (13) to enter the PreAlarm time.

   NOTE: PreAlarm times are measured from the end of the total cook time. For example if the total cook time is 30:00 and a PreAlarm of 5:00 is entered, the alarm will sound 25 minutes into the cook cycle. If a PreAlarm of 0:00 is entered, no additional PreAlarms may be programmed for the selected product key.

2. Press the SCAN KEY (14).
3. The top display reads *AUTO*. The bottom display reads either YES or no. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14) to enter the PreAlarm type.

   NOTE: An auto PreAlarm sounds for approximately 5 seconds, then shuts off automatically. For manual PreAlarms the operator must press the product key to silence the alarm.

4. The top display reads *A2__*. Repeat steps 1 – 3 for the second and third PreAlarm. When all PreAlarms have been entered the control advances to programming the head count.

Programming the Head Count:

1. The top display reads *HEAd*. The bottom display gives the current number of heads programmed for this product key. Use the product keys to enter the desired number of heads from 1 – 99.
2. Press the SCAN KEY (14). The programming for this recipe is now complete.

Exiting the programming mode:

1. The top display reads *Prod.* Press the PROG KEY (9). The control returns to operating mode.

2ND LEVEL PROGRAMMING

Entering the programming mode

1. Press the PROG KEY (9). The top display reads *CodE*.
2. Use the product keys to enter the programming access code: 4 5 1 2. Press the ENTER KEY (13). The top display reads *SYS*.

Programming hold

Hold allows product to be kept warm in the oven at a programmed time and temperature. There are two hold modes available, auto and manual. If auto hold is enabled the control will automatically place the oven into the hold mode at the end of each cooking cycle. If manual hold is enabled the unit can be placed into the hold mode at any time.

1. Press the SCAN KEY (14). The top display reads *HoLd*. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14).

   If no is chosen:

   a.) The controller advances to programming the setback mode.

   If yes is chosen:

   a.) The top display reads *AUto*. Press the TOGGLE/CLEAR KEY (10) to toggle between *YES* and *no*. Press the SCAN KEY (14) to enter the desired hold mode.

   b.) The top display reads *HoLd*. The bottom display gives the current hold time. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter a hold time from 0 to 9 hours. Press the SCAN KEY (14) to enter the new hold time.

   c.) The top display reads *HoLd*. The bottom display gives the current hold temperature. Press the TOGGLE/CLEAR KEY (10). Use the product keys to enter a hold temperature from 140°F–210°F. Press the SCAN KEY (14) to enter the new hold temperature.

   d.) The top display reads *FAn*. The bottom display gives the current fan mode. To change the fan mode press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *Hi* and *Lo*. Press the SCAN KEY (14) to enter the new fan mode and continue with programming the setback mode.

Programming the setback mode

The setback mode operates as a power saving feature. After a period of non-use (the setback time) the oven temperature automatically decreases to the setback temperature. The oven will maintain this temperature until a product key is pressed.

1. The top display reads *SEtb*. The bottom display gives the setback mode. To change the setback press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *YES* and *no*. Press the SCAN KEY (14).

   If no is chosen:

   a.) The controller advances to programming the temperature mode.

   If yes is chosen:

   a.) The bottom display gives the current setback time. Press the TOGGLE/CLEAR KEY (10). Use the product keys to the enter the desired setback time. Press the SCAN KEY (14) to enter the new setback time.

   NOTE: The minimum setback time is 20:00. The maximum setback time is 59:59.

   b.) The bottom display gives the current setback temperature. Press the TOGGLE/CLEAR KEY (10). Use the product keys to the enter a setback temperature from 140°F–300°F. Press the SCAN KEY (14) to enter the new setback and continue with programming the temperature mode.

Programming the temperature mode (°F or °C)

1. The top display reads *dEg*. The bottom display gives the units. To change the units press the TOGGLE/CLEAR KEY (10). The bottom display toggles between *F* and *C*.
2. Press the SCAN KEY (14) to enter the new temperature units and continue programming the oven size.

Operation

CTBR-AP Control

Programming the oven size

1. The top display reads *APPL*. The bottom display reads either *FULL* or *HALF*. Press the TOGGLE/CLEAR KEY (10) until the bottom display reads *HALF* for the CTBR-AP.
2. Press the SCAN KEY (14) to enter the oven size and continue with exiting the programming mode.

Exiting the programming mode

1. The top display reads *SYS*. Press the PROG KEY (9). The control returns to the operating standby mode.

Parameter	KFC Default
Hold mode	NO
Setback	NO
Temperature Units	°F
Appliance Size	HALF

Programming the Offset

Call Blodgett service for offset programming instructions.

REPLACING THE RECIPE CARD

1. Remove the two screws from the top and bottom of the control panel cover. Remove the cover.

   NOTE: Inspect the control gasket. If damaged call Blodgett service for replacement.
2. Pull back the control decal.
3. Remove the old recipe card.
4. Insert the new recipe card.
5. Replace the control decal.
6. Replace the control cover.
7. Reinstall the screws.

ERROR CODES AND ALARMS

NOTE: The error codes will appear in the top display. All error codes are accompanied by an audible alarm.

Hi	Oven temperature is more than 40°F above the highest setpoint.
Prob	Probe failure.
HEAT ERR	From a cool start (below 130°F), the oven takes more than 6 minutes to climb from 150-300°F. Press the TOGGLE/CLEAR KEY (10) to clear the prompt. This code indicates a problem with the system. Contact a service technician.
FAN ERR	Indicates a fan failure during a call for heat. Press the TOGGLE/CLEAR KEY (10) to clear the alarm. The FAN ERR display remains active. Press the TOGGLE/CLEAR KEY (10) again to clear the message and return the system to normal operation. If condition persists turn off the oven and contact a service technician.
FANC ERR	Indicates a contact failure has occurred in the fan control circuit. Press the TOGGLE/CLEAR KEY (10) to clear the alarm. The FANC ERR display remains active. Press the TOGGLE/CLEAR KEY (10) again to clear the message and return the system to normal operation. If condition persists turn off the oven and contact a service technician.
DOOR OPEN	The controller senses the door is open. Close the door. If the door is closed contact a service technician.

CLEANING THE OVEN

Refer to KFC Equipment Standards Library Volume 2 – CTBR-AP for morning start-up and nightly cleaning procedures.

There are two critical performance areas that warrant daily cleaning. These include:

- Fan Wheel
- Probe

Cleaning the Fan Wheel

1. Hold the fan wheel with a gloved hand.
2. Use the L-shaped oven brush to clean the fins on the fan wheel.
3. Use the hand brush to clean the center portion of the blower wheel.
4. Wipe all around the fan with a damp towel.

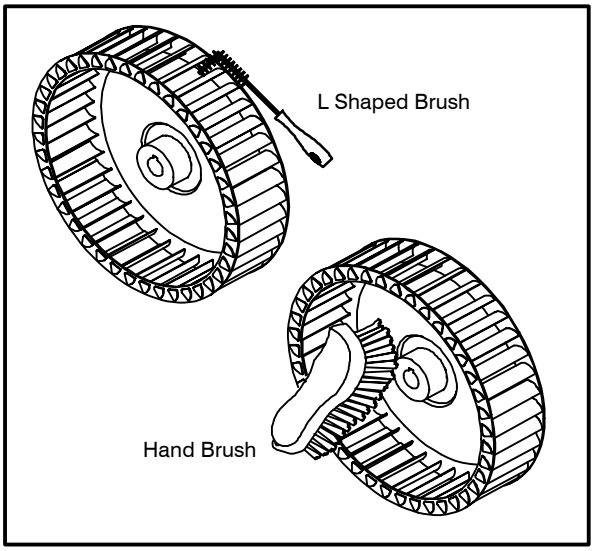


Figure 9

Cleaning the Probe

1. Use the L shaped brush to clean behind the probe.
2. Use a damp towel to wipe the probe.

Cleaning Behind the Baffle Panel

1. Use the hand brush to clean around the heating element area behind the baffle panel.

PREVENTATIVE MAINTENANCE

The best preventative maintenance measures are the proper installation of the equipment and a program for routinely cleaning the ovens.

Annual Maintenance

This oven requires no lubrication, however, the venting system should be checked annually for possible deterioration resulting from moisture and corrosive flue products.

If maintenance or repairs are required, contact your local Blodgett service company, a factory representative or the Blodgett Oven company.

WARNING!!

Always disconnect the appliance from the power supply before servicing or cleaning.

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